



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,606	06/27/2003	Ramesh Gopalan	LAM2P419	7609

25920 7590 10/19/2005

MARTINE PENILLA & GENCARELLA, LLP
710 LAKEWAY DRIVE
SUITE 200
SUNNYVALE, CA 94085

EXAMINER

CHEN, ERIC BRICE

ART UNIT PAPER NUMBER

1765

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/607,606

Applicant(s)

GOPALAN ET AL.

Examiner

Eric B. Chen

Art Unit

1765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10, 11 and 13-16 is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 2, 4, 5 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 2, 4, 5, and 12 are objected to because of the following informalities:
“signal” apparently should be – voltage signal –. Appropriate correction is required.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-9 are rejected under 35 U.S.C. 101 because the claimed invention lacks utility. Specifically, because claim 1 does not contain any physical steps, “tracking” could be interpreted as a series of mental steps. In addition, the limitation of “identifying the step of planarization” fails to claim any subsequent physical step in response, once the onset of planarization has occurred. The claimed invention as a whole must accomplish a practical application. That is, it must produce a “useful, concrete and tangible result.” *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1601-02 (Fed. Cir. 1998). The purpose of this requirement is to limit patent protection to inventions that possess a certain level of “real world” value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (*Brenner v. Manson*, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); *In re Ziegler*, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)).

Art Unit: 1765

4. Claims 2-9 are rejected under 35 U.S.C. 101 because they are dependent on a base claim that lacks utility.

Allowable Subject Matter

5. Claims 10-11 and 13-16 are allowed.

6. Claim 12 is objected to, but would be allowable if rewritten to replace "signal" with -- voltage signal --.

7. The following is a statement of reasons for the indication of allowable subject matter for claim 10: the prior art fails to teach or suggest triggering a transition point when the rate of change crosses the threshold decrease associated with the rate of change and after a period of time in which the rate of change increases, *the transition point indicating an onset of planarization* (emphasis added). The closest prior art, Sun, discloses triggering a transition point (T4) when the rate of change crosses the threshold decrease (T4 to T5 in Figure 8D) associated with the rate of change and after a period of time in which the rate of change increases (T2 to T4 in Figure 8D) (column 9, lines 27-43). Sun's transition is associated with the breakthrough of metal layer (54) (column 7, lines 46-48; column 9, lines 36-43). However, there is no motivation of suggestion of triggering a transition point when the rate of change crosses the threshold decrease associated with the rate of change and after a period of time in which the rate of change increases, the transition point indicating an onset of planarization, as in the context of claim 10.

Response to Arguments

8. Applicant's arguments (Applicants' Remarks, page 7) filed Aug. 24, 2005, with respect to rejection of claim 10-16 under 35 U.S.C. 103(a) as being unpatentable over Redeker, in view of Sun have been fully considered and are persuasive. Applicants have correctly pointed out that Redeker and Sun do not teach the claim limitation of "triggering a transition point when the rate of change crosses the threshold decrease associated with the rate of change and after a period of time in which the rate of change increases, the transition point indicating an onset of planarization". The rejection of claims 10-16 has been withdrawn.

9. Applicant's arguments, (Applicants' Remarks, page 7), filed Aug. 24, 2005, with respect to rejection of claim 1-9 under 35 U.S.C. 103(a) as being unpatentable over Redeker, in view of Sun, have been noted. However, upon further consideration, a new ground(s) of rejection is made in view of 35 U.S.C. 101 for lacking utility, as discussed above.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cote et al. (U.S. Patent No. 5,308,438) discloses a method of determining the endpoint for chemical mechanical polishing by monitoring motor current. Nagano et al. (U.S. Patent No. 6,563,308) discloses an eddy current measuring system in which thickness is monitored by resistance.

Art Unit: 1765

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B. Chen whose telephone number is (571) 272-2947. The examiner can normally be reached on Monday through Friday, 8AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine G. Norton can be reached on (571) 272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EBC
Oct. 13, 2005

NADINE G. NORTON
SUPERVISORY PATENT EXAMINER

NADINE G. NORTON
SUPERVISORY PATENT EXAMINER

